UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/431,902	11/02/1999	KAZUYUKI OHTSU	FUJY=16.705	9388

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EXAMINER
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ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 12/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/431,902	OHTSU ET AL.
	Examiner	Art Unit	
	Derrick W. Ferris	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 November 2003</u>.

2a)☒ This action is **FINAL**.　　2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-8</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-8</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>02 November 1999</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
　　a)☒ All　b)☐ Some *　c)☐ None of:
　　　1.☒ Certified copies of the priority documents have been received.
　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.
　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　application from the International Bureau (PCT Rule 17.2(a)).
　　* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application)
since a specific reference was included in the first sentence of the specification or in an Application Data Sheet.
37 CFR 1.78.
　　a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific
reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: .

U.S. Patent and Trademark Office
PTOL-326 (Rev. 11-03)　　　　　　　　Office Action Summary　　　　　　　　Part of Paper No. 11

DETAILED ACTION

1.   Applicant's request for reconsideration of the finality of the rejection of the last Office

action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Amendment

2.   **Claims 1-8** as amended are still in consideration for this application. Applicant has

amended claims 1, 2, 3, 4, 7, and 8 in response filed 05/26/03.

3.   Examiner does **not withdraw** the obviousness rejection to *Vargo et al.* (*"Vargo"*) in

view of *Haeggstrom*.   To clarify the examiner's position and respond to applicant's argument,

the examiner has replaced the term "inherent or obvious" with "obvious" since the previous

rejection may not have been clear. As the rejection still stands, the rejection is maintained and

made final but the clock is restarted in order to give applicant an opportunity to respond to the

examiner's clarified position.   Below is the examiner's clarification and response to applicant's

argument filed 11/24/2003.

At issue is the judging limitation. Specifically at issue is the limitation:

> *"judging whether the compression form set by said setting section coincides with the
> compression form of the compressed data received from the circuit switched network or
> not, compressing/expanding the data received from circuit switched network when the
> compressed forms do not coincide, passing through the compressed data received from
> the circuit switched network when the compressed forms are judged to coincide".* [in
> reference to applicant's remarks filed 11/24/03 on page 2]

Vargo teaches a dynamic selection of a codec. Specifically, at column 7, lines 6-34 *Vargo*

teaches the following:

> *(24) "Instead of changing the packet redundancy, the voice port can also
> dynamically vary the packet size or bundling. The packet size may initially be
> 67 bytes, with 64 bytes of information and a 3 byte header. The packet
> bundling may be changing by bundling two 64 byte packets together with a 3 byte*

> *header to give a 131 byte packet. Or, the packet size could be changed from 64*
> *bytes to 32 bytes of information to give a 35 byte packet, including a 3 byte*
> *header. Both the packet size and packet bundling can be changed by the voice*
> *port from packet to packet in the data stream to accommodate the loss*
> *characteristics of the Internet at that particular time.*
>
> *(25)   Furthermore, not only does the voice port have the capability of*
> *dynamically changing the redundancy, packet size and packet bundling from*
> *packet to packet, but also the voice port can similarly vary the codec*
> *algorithm from packet to packet. The packet is given self-describing*
> *information about what type of codec is needed at the receiver to decompress*
> *the packet. The choice of codec at the transmitter may be derived from a*
> *complex function of choices of packet redundancy, packet size and packet*
> *bundling.*
>
> *(26)   The voice port of the present invention can thus dynamically pick the*
> *speech compression algorithm, the data packet size, and the type of forward*
> *error correction to adapt to network conditions. A complex feedback algorithm*
> *dictates the various conditions under which the voice port adjusts these*
> *variables. The voice port can also select from several qualities of codec in*
> *response to possible conditions presented by the network. "*

Thus taught by *Vargo* is dynamically selecting a codec that may be derived from a complex

function of choices of packet redundancy, packet size and packet bundling which is also

dependent on the quality which in-turn depends on the possible conditions present on the

network. Examiner notes one condition present on a possible network is TFO as further taught

by *Haeggstrom*. *Haeggstrom* is silent or deficient in judging the selection of a codec based

compression. *Vargo* discloses dynamically selecting a codec where the codec is selected based

on a complex form of packet redundancy, packet size, and packet bundling which in turn is

dependent on the type of network. Examiner notes that it would have been obvious to one

skilled in the art prior to applicant's invention to further select a codec based on previous

compression (i.e., judging whether the compression set by said selection coincides with the

compression form of the compressed data recovered from the switched network) where said

compression is dependent on the possible conditions present in the network. In particular,

examiner notes that one possible condition present on the network is TFO where a skilled artisan

would recognize that double encoding/compression lowers the quality of the connection (i.e.,

note quality is mentioned in the above-cited passage to *Vargo* with respect to dynamic selection

and conditions present on the network). Furthermore, *Vargo* cures the above-cited deficiency by

providing support and motivation that it is well known in the art to avoid double compression. In

particular, *Vargo* discloses the following in the background (emphasis added where the term

inherent was removed by the examiner since the passage below is found in the background of

Vargo):

> *(11) "Prior art systems typically run only one codec at a time, although the*
> *codec may be specified initially by the user through adjustment of the computer*
> *settings or through selecting the codec from a file menu. Codec programs at*
> *both ends of an exchange must be able to understand each another, so*
> *compatibility between codecs may also be an issue.*
> *(10) Codecs do not address data dropouts or loss. Ordinarily, the Internet*
> *Protocol uses an Automatic Repeat Request (ARQ) to request retransmissions of*
> *lost messages, but voice transmission systems attempt to interpolate lost data*
> *rather than resend it.*
> *(11) It is generally known in prior art Internet telephone systems that*
> *codecs can be manually selected since both parties must be using the same codec*
> *to understand one another. U.S. Pat. No. 5,539,908 to Chen et al discloses a*
> *system for dynamically linking codec algorithms between file formats. While*
> *Chen et al supports a plurality of existing and future codec installations,*
> *codecs are only changed between file formats and not on a packet-to-packet*
> *basis. "*

Thus *Vargo* teaches the further concept that both parties must use the same compression/codec to

understand one another (i.e., quality is effected if the parties cannot understand one another).

Thus taught in the dynamic selection process is indirectly choosing a codec that must be the

same on both ends. Hence in relation to applicant's claimed subject matter, the selection process

must also select (i.e., judge) a compression that coincides with the compression form of the

compressed data. Whether the data is compressed or expanded is based on what is known in the

prior art. In other words, stated another way, the prior art clearly teaches during a manual (i.e.,

static) selection/judging processes to select or judge a codec that is the same on both ends of the

connection: the motivation being quality (see background of *Vargo*). Examiner notes that it

would have been obvious to one skilled in the art to apply this same concept to a dynamic

selection process as well where the motivation is still the same (i.e., the same motivation of

quality). Thus indirectly taught by the reference is choosing/selecting/judging a compression

that coincides with the compression form of the compressed data (i.e., if the compression is not

the same then the quality will be impacted). In determining whether to compress or expand the

data, the teachings for TFO are applied as further taught by *Haeggstrom*. In particular,

Haeggstrom teaches that compressing or expanding also impacts the quality of the compressed

data. Thus the references in combination teach applicant's recited limitation.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   **Claims 1-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

No. 6,356,545 to *Vargo et al.* ("*Vargo*") in view of U.S. Patent No. 6,167,040 to *Haeggstrom*.

As to **claims 1, 2, 7 and 8**, *Vargo* discloses an Internet system able to

dynamically select a CODEC (i.e., perform expansion and compression using a broad but

reasonable interpretation of the term CODEC) [Abstract]. Specifically, *Vargo* discloses

an invention relating generally to both the Internet and the PSTN (i.e., circuit switched

networks) thus creating a motivation as a whole for applying this reference [column 1,

lines 15-20]. *Vargo* presents a gateway 10 for voice communications between an Internet

Protocol (IP) network 17 and a circuit switched network 11 [figure 1; column 3, lines 42-

56; column 4, lines 36-40]. This gateway uses software to create a session (figure 4) and

control the characteristics of a session at a voice port by not only adjusting such factors as

the packet size or bundling of a packet [column 7, lines 6-17] but also varying in the

selection of a codec per packet as well [column 7, lines 18-27]. Thus examiner notes a

broad but reasonable teaching of either expansion or compression depending on the type

of codec employed per packet. Thus examiner notes that should no codec be employed

per packet then a tandem free operation (TFO) is broadly performed in that the software

(i.e. controller) of the gateway can transmit the packets without subject to

expansion/compression using a broad but reasonable interpretation of the recited claimed

subject matter.

Examiner notes the reference also indirectly teaches a setting section using a

broad but reasonable interpretation of the claim. Examiner notes specifically that *Vargo*

teaches selecting a codec 222 based on speech quality 221 at a voice port 61 (figure

11(b)) where it would have been obvious to a skilled artisan prior to applicant's invention

that the codec selected (i.e., the judging section with controller) is based on a pass-

through state if compression has already taken place on the transmitting side. The

motivation for a pass-through state comes from an end-to-end tandem free operation as is

known in the art (in particular see column 2, lines 8-27 of *Vargo*). *Haeggstrom* provides

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additional support for end-to-end tandem free operation using the same codec end-to-end

such that the codec in the gateway must be the same which is taught in the second

embodiment shown in figure 4.

As to **claim 3**, in addition to the reasoning mentioned in claim 3, shown in figure

1 are multiple gateways connecting a circuit switched network (i.e., the PSTN) to an

Internet Protocol (IP) network (i.e., the INET 17). Noted previously by the reference the

software of the gateway is used to control the session information for the call including

the port characteristics for the session.

As to **claims 4, 5 and 6**, examiner acknowledges that *Vargo* teaches codec

selection in general for each gateway. Also taught could be not selecting a codec thus

performing a Tandem Free Operation as is well known in the art to a skilled artisan prior

to applicant's invention. Also taught by *Vargo* is selecting a codec based on speech

quality should a codec not be detected.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

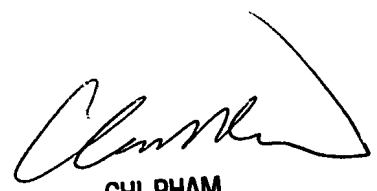Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

Derrick W. Ferris
Examiner
Art Unit 2663

DWF

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